Danfoss DST X520 Rotary Position Sensor Installation Guide

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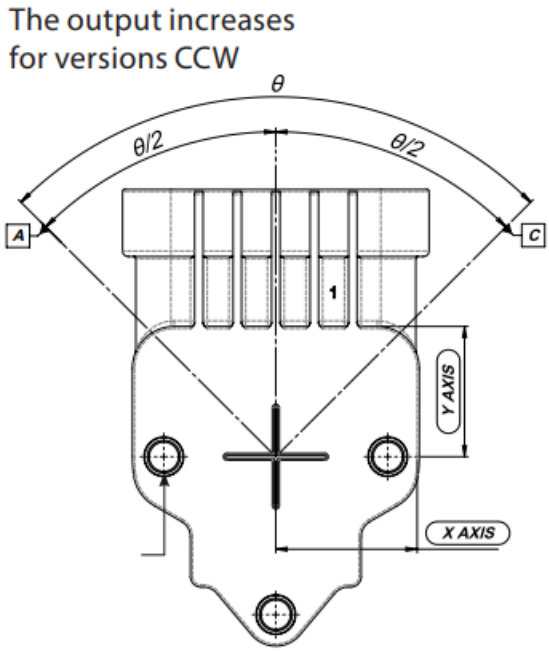
Danfoss DST X520 Rotary Position Sensor

Specifications

- **Product** Rotary sensor without shaft DST X520
- **Manufacturer** Danfoss A/S
- **Output Options:** CW Output, CCW Output, 0.5Vdc Output, 4.5Vdc Output
- **Electrical Connections** AMP Superseal 6-pole 282108-1 connector
- **Cable Version** 6 wires 18 AWG, 1.65 mm OD

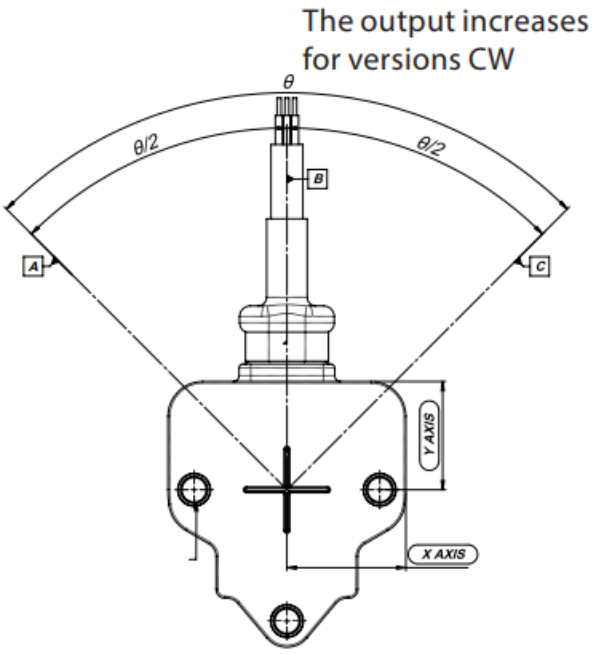
ROTATION DIRECTION

AMP VERSION

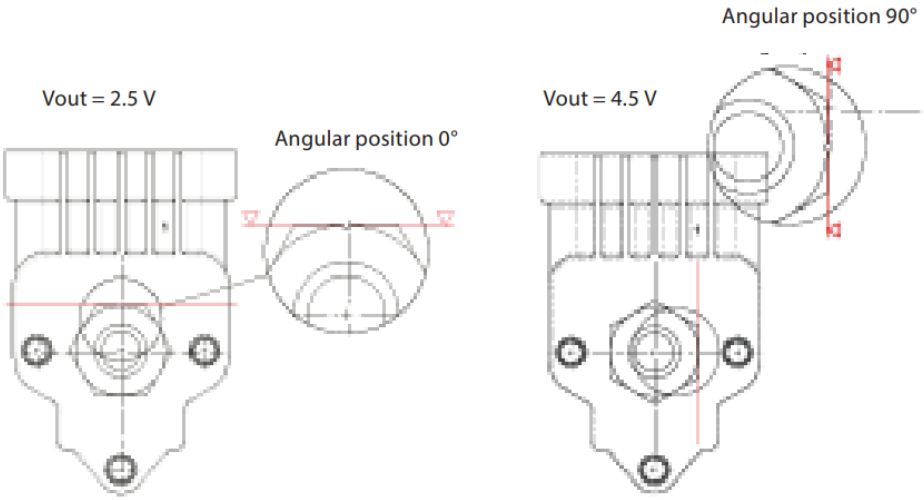


Zero angular position of 0 °

CABLE VERSION

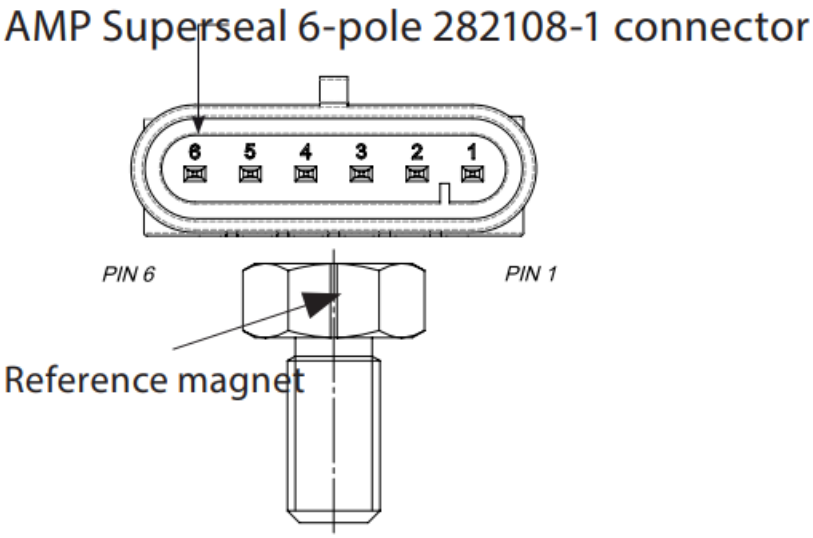


Ex 098G1500
SINGLE- ± 90°- supply 7Vdc – output 0.5..4.5V – clockwise CW



ELECTRICAL CONNECTIONS

AMP VERSION



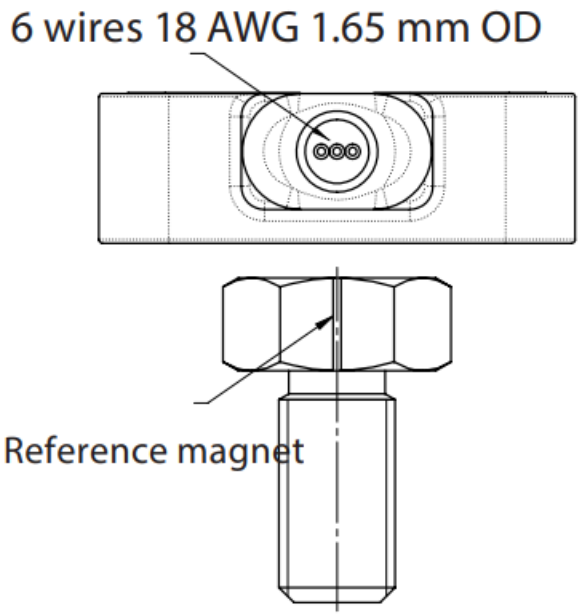
CONNECTIONS

1. GROUND 1
2. + SUPPLY 1
3. OUTPUT 1
4. GROUND 2
5. + SUPPLY 2
6. OUTPUT 2

CAN CONNECTIONS

1. OV (GND)
2. +Vs (+9 … +36 Vdc)
3. NC
4. NC
5. CAN-L
6. CAN-H

CABLE VERSION



CONNECTIONS

- Black. GROUND 1
- Red. + SUPPLY 1
- Yellow. OUTPUT 1
- Green. GROUND 2
- Blue. + SUPPLY 2
- White. OUTPUT 2

CAN CONNECTIONS

1. OV (GND)
2. +Vs (+9 … +36 Vdc)
3. NC
4. NC
5. CAN-L
6. CAN-H

To ensure the degree of protection IPX9, ,K the connector must be couplewithan h AMP 282600-1 female connector.

DST X520
HALL-EFFECTSINGLE-TURNN ROTARY SENSOR WITHOUT SHAFT Danfoss A/S 6430 Nordborg Denmark
www.danfoss.com

WARNINGS AND SAFETY
Although all of the information in this manual has been carefully checked, Danfoss A/S assumes no liability regarding the presence of any errors og damage to property and/or harm to individuals due to any improper use of this manual. Danfoss A/S also reserves the right to make changes to the contents and form of this manual and to the characteristics of the devices illustrated at any time and without prior warning. The installation of the devices illustrated in the manual must be carried out by qualified technicians in compliance with the laws and standards in force and agreement with the instructions contained in the manual. The system should be used only for the

expected protection. The sensor must be used by the environmental features and performance of the instrument.

LOAD CONDITIONS

- +0.5Vdc…+4.5 Vdc output with power +9…+36Vdc and +0..10Vdc output with power +11..36Vdc: it is recommended a load resistance > 100 KΩ
- +0.5Vdc…+4.5 Vdc output with power +5 Vdc: it is recommended a load resistance > 10 KΩ
- +4…20 mA output with power < + 15..36Vdc: the maximum load resistance is admissible 200Ω
- +4…20 mA output with power > + 15..36Vdc: the maximum load resistance is admissible 500Ω

MAGNETS

- Magnet should NOT be incorporated in a ferromagnetic housing (Holder)
- Magnet should NOT be installed in close contact with a surface of ferromagnetic material
- If the magnet is incorporated in a housing (holder) of ferromagnetic material or is installed in close contact with a surface of ferromagnetic material, the magnetic field is reduced
- If the magnetic field is reduced, the Air Gap value is no longer guaranteed up to 7 mm,and the usefull working distance magnet-sensor is reduced to <5 mm
- If the application does not allow to use of a material for the magnet bearing surface is necessary to raise the magnet by at least 1 cm
- To raise the magnet of at least 1 cm from the forromagnetic surface we recommend to use NON ferromagnetic screws or spacers

MOUNTING
Mount the sensor using M4 screws in nonmagnetic stainless steel eg AISI 316 or brass (not included). The maximum torque amounts to 2.5Nm.

- It is recommended to use M12 female connectors with a key interface, in order to mount with specied torque using a torque spanner.
- In a harsh environment, we recommend using tread sealing liquid.

Danfoss A/S with the “CE” mark ma,nufactured according to the Community Directives and the related National Legislation of conception:

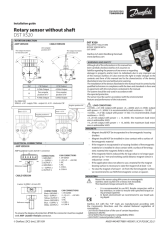
- 2011/65/EU Restriction of the use of certain hazardous substances (RoHS)
- 2014/30/EU Electromagnetic Compatibility (EMC)
- 2001/95/EC General product safety

FAQs

Q: What are the recommended load resistances for different output options?
A: The manual specifies load resistance recommendations based on the output voltage and power supply. Refer to the manual for detailed information.

Q: Can magnets be used with the rotary sensor?
A: Yes, magnets can be used with the rotary sensor for specific applications. Follow manufacturer guidelines for proper magnet use.

Documents / Resources

	Danfoss DST X520 Rotary Position Sensor [pdf] Installation Guide DST X520, DST X520 Rotary Position Sensor, DST X520, Rotary Position Sensor, Position Sensor, Sensor

References

- User Manual